

What is claimed is:

1. An EL display device comprising:  
a light emitting layer sandwiched between a cathode and an anode; and  
5 a passivation film formed on said anode,  
wherein a halogen element is contained in vicinities of an interface between  
said light emitting layer and said anode.
2. A device according to claim 1, wherein said halogen element is contained in  
10 said anode.
3. A device according to claim 1, wherein said halogen element is contained in  
said passivation film.
- 15 4. A device according to claim 1, wherein there are a region containing the  
halogen element and a region not containing the halogen element in the vicinities of the  
interface between said light emitting layer and said anode.
5. A device according to claim 1, wherein said cathode comprises a metal film  
20 containing an alkali metal element or an alkaline earth metal element while said anode  
comprises a transparent conductive film.
6. A device according to claim 1, wherein said passivation film is an insulating  
film containing silicon.

7. A device comprising an EL display device according to claim 1.

8. An EL display device comprising:

a TFT formed over a substrate;

5 a light emitting layer sandwiched between an anode and a cathode, said cathode electrically connected to said TFT; and

a passivation film is formed on said anode,

wherein a halogen element is contained in vicinities of an interface between said light emitting layer and said anode.

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9. A device according to claim 8, wherein said halogen element is contained in said anode.

10. A device according to claim 8, wherein said halogen element is contained in  
15 said passivation film.

11. A device according to claim 8, wherein there are a region containing the halogen element and a region not containing the halogen element in the vicinities of the interface between said light emitting layer and said anode.

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12. A device according to claim 8, wherein said cathode comprises a metal film containing an alkali metal element or an alkaline earth metal element while said anode comprises a transparent conductive film.

25 13. A device according to claim 8, wherein said passivation film is an insulating

film containing silicon.

14. A device comprising an EL display device according to claim 8.

5 15. An EL display device comprising:

a light emitting layer sandwiched between a cathode and an anode; and

a passivation film formed on said anode, and

wherein an alkali metal element or an alkaline earth metal element is  
contained in vicinities of an interface between said light emitting layer and said  
10 cathode.

16. A device according to claim 15, wherein there are a region containing the  
alkali metal element or the alkaline earth metal element and a region not containing the  
alkali metal element or the alkaline earth metal element in said passivation film.

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17. A device according to claim 15, wherein there are a region containing the  
alkali metal element or the alkaline earth metal element and a region not containing the  
alkali metal element or the alkaline earth metal element in the vicinities of the interface  
between said light emitting layer and said cathode.

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18. A device according to claim 15, wherein said cathode comprises a metal film  
containing an alkali metal element or an alkaline earth metal element while said anode  
comprises a transparent conductive film.

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19. A device according to claim 15, wherein said passivation film is an insulating

film containing silicon.

20. A device comprising an EL display device according to claim 15.

5 21. An EL display device comprising:

a TFT formed over a substrate;

a light emitting layer sandwiched between an anode and a cathode, said cathode electrically connected to said TFT; and

a passivation film is formed on said anode,

10 wherein an alkali metal element or an alkaline earth metal element is contained in vicinities of an interface between said light emitting layer and said cathode.

22. A device according to claim 21, wherein there are a region containing the  
15 alkali metal element or the alkaline earth metal element and a region not containing the alkali metal element or the alkaline earth metal element in said passivation film.

23. A device according to claim 21, wherein there are a region containing the alkali metal element or the alkaline earth metal element and a region not containing the  
20 alkali metal element or the alkaline earth metal element in the vicinities of the interface between said light emitting layer and said cathode.

24. A device according to claim 21, wherein said cathode comprises a metal film containing an alkali metal element or an alkaline earth metal element while said anode  
25 comprises a transparent conductive film.

25. A device according to claim 21, wherein said passivation film is an insulating film containing silicon.

26. A device comprising an EL display device according to claim 21.

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27. A method of manufacturing an EL display device, comprising the steps of:

forming a cathode;

forming a light emitting layer on said cathode;

forming an anode on said light emitting layer;

10 forming a passivation film on said anode; and

doping said light emitting layer with a halogen element through said passivation film.

28. A method according to claim 27, wherein said light emitting layer is doped  
15 with the halogen element such that the concentration of the halogen element is the highest in the vicinities of the interface between said anode and said light emitting layer.

29. A method according to claim 27, wherein said cathode is formed of a metal  
20 film containing an alkali metal element or an alkaline earth metal element while said anode is formed of a transparent conductive film.

30. A method according to claim 27, wherein said passivation film is formed of an insulating film containing silicon.

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31. A method of manufacturing an EL display device, comprising the steps of:  
forming a TFT over a substrate;  
forming a cathode that is electrically connected to said TFT;  
forming a light emitting layer on said cathode;  
5 forming an anode on said light emitting layer;  
forming a passivation film on said anode; and  
doping said light emitting layer with a halogen element through said  
passivation film.

10 32. A method according to claim 31, wherein said light emitting layer is doped  
with the halogen element such that the concentration of the halogen element is the  
highest in the vicinities of the interface between said anode and said light emitting  
layer.

15 33. A method according to claim 31, wherein said cathode is formed of a metal  
film containing an alkali metal element or an alkaline earth metal element while said  
anode is formed of a transparent conductive film.

20 34. A method according to claim 31 wherein said passivation film is formed of  
an insulating film containing silicon.

35. A method of manufacturing an EL display device, comprising the steps of:  
forming a cathode;  
forming a light emitting layer on said cathode;  
25 forming an anode on said light emitting layer;

forming a passivation film on said anode;  
selectively forming a resist on said passivation film; and  
doping said light emitting layer with a halogen element through said  
passivation film.using said resist as a mask.

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36. A method according to claim 35, wherein said light emitting layer is doped  
with the halogen element such that the concentration of the halogen element is the  
highest in the vicinities of the interface between said anode and said light emitting  
layer.

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37. A method according to claim 35, wherein said cathode is formed of a metal  
film containing an alkali metal element or an alkaline earth metal element while said  
anode is formed of a transparent conductive film.

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38. A method according to claim 35, wherein said passivation film is formed of  
an insulating film containing silicon.

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39. A method of manufacturing an EL display device, comprising the steps of:  
forming a cathode;  
forming a light emitting layer on said cathode;  
forming an anode on said light emitting layer;  
forming a passivation film on said anode; and  
doping said light emitting layer with an alkali metal element or an alkaline  
earth metal element through said passivation film.

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40. A method according to claim 39, wherein said light emitting layer is doped with the alkali metal element or the alkaline earth metal element such that the concentration of the alkali metal element or alkaline earth metal element is the highest in the vicinities of the interface between said cathode and said light emitting layer.

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41. A method according to claim 39, wherein said cathode is formed of a metal film containing an alkali metal element or an alkaline earth metal element while said anode is formed of a transparent conductive film.

10 42. A method according to claim 39, wherein said passivation film is formed of an insulating film containing silicon.

43. A method of manufacturing an EL display device, comprising the steps of:

- forming a TFT over a substrate;
- 15 forming a cathode that is electrically connected to said TFT;
- forming a light emitting layer on said cathode;
- forming an anode on said light emitting layer;
- forming a passivation film on said anode; and
- doping said light emitting layer with an alkali metal element or an alkaline
- 20 earth metal element through said passivation film.

44. A method according to claim 43, wherein said light emitting layer is doped with the alkali metal element or the alkaline earth metal element such that the concentration of the alkali metal element or alkaline earth metal element is the highest

25 in the vicinities of the interface between said cathode and said light emitting layer.



45. A method according to claim 43, wherein said cathode is formed of a metal film containing an alkali metal element or an alkaline earth metal element while said anode is formed of a transparent conductive film.

5        46. A method according to claim 43, wherein said passivation film is formed of an insulating film containing silicon.

47. A method of manufacturing an EL display device, comprising the steps of:  
forming a cathode;  
10        forming a light emitting layer on said cathode;  
forming an anode on said light emitting layer;  
forming a passivation film on said anode;  
selectively forming a resist on said passivation film; and  
doping said light emitting layer with an alkali metal element or an alkaline  
15        earth metal element through said passivation film using said resist as a mask to  
dope.

48. A method according to claim 47, wherein said light emitting layer is doped  
with the alkali metal element or the alkaline earth metal element such that the  
20        concentration of the alkali metal element or alkaline earth metal element is the highest  
in the vicinities of the interface between said cathode and said light emitting layer.

49. A method according to claim 47, wherein said cathode is formed of a metal  
film containing an alkali metal element or an alkaline earth metal element while said  
25        anode is formed of a transparent conductive film.

50. A method according to claim 47, wherein said passivation film is formed of an insulating film containing silicon.